
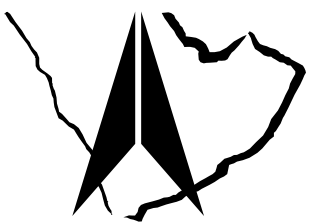
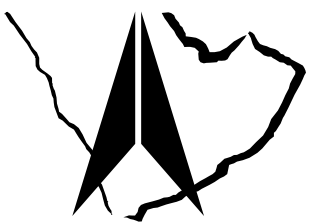
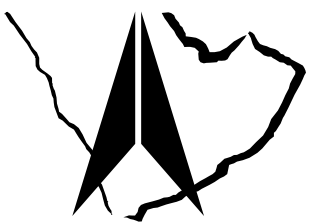
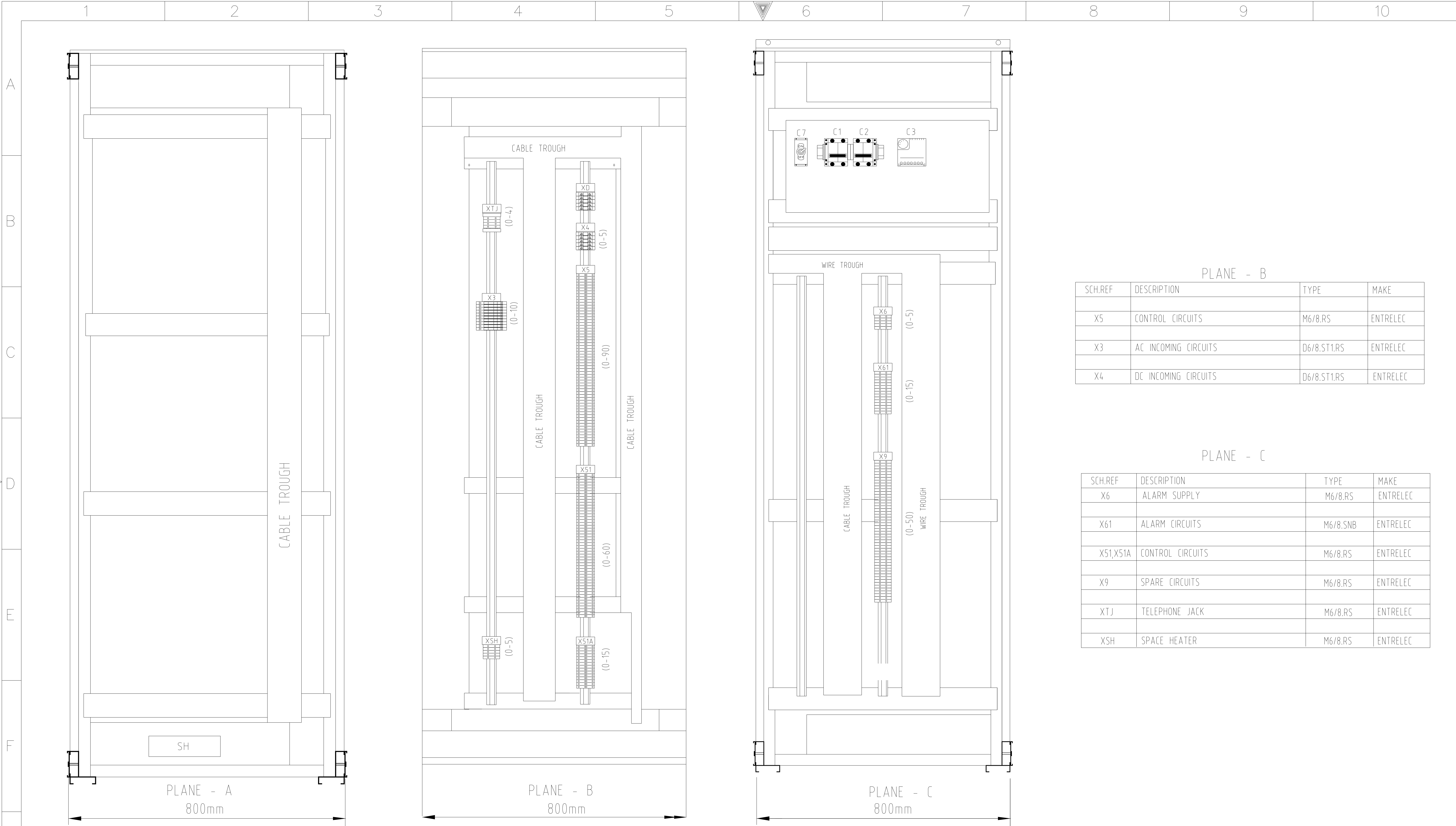


	1	2	3	4	5	6	7	8	9	10																																																							
A			POWER SYSTEMS NETWORK MANAGEMENT PROTECTION AND SUBSTATION AUTOMATION SYSTEMS WBS NO: S-13656					ABB AUTOMATION COMPANY LTD., 414, AL-KHARJ ROAD SECOND INDUSTRIAL CITY RIYADH-11383 K.S.A																																																									
B																																																																	
C	CONTRACTOR : ABB Contracting Company																																																																
	CLIENT : National Grid sa																																																																
D	PROJECT : CONSTRUCTION OF NEW 132/13.8kV SS 8709 IN AL-KHARJ CITY																																																																
	SUBSTATION : S/S 8709																																																																
E	CONTRACT NO. : 11131113/00																																																																
	TITLE : Assembly Drawing - +UFLS01 [U/F LOAD SHEDDING]																																																																
F																																																																	
G	<table><tr><td colspan="3">AS-BUILT BY _____ DATE _____</td><td colspan="2">CONTRACT NO. 11131113/00</td><td colspan="2">JOB ORDER NO. S-13656</td><td colspan="2">ASSEMBLY DRAWING</td><td colspan="2"><div>الشركة الوطنية لنقل الكهرباء</div><div> <b>نقل الكهرباء</b> National Grid sa</div></td></tr><tr><td></td><td></td><td></td><td colspan="2">DRAWN BY <u>RIZ</u> CHECKED BY <u>KVR</u></td><td colspan="2"></td><td colspan="2">13.8kV U/F LOAD SHEDDING - +UFLS01</td><td colspan="2"></td></tr><tr><td></td><td>01</td><td>13 48</td><td colspan="2">AS MANUFACTURED</td><td colspan="2">DATE STARTED <u>24.01.2013</u> DATE COMPLETED _____</td><td colspan="2">S/S 8709 - 132/13.8KV IN AL-KHARJ CITY</td><td colspan="2"></td></tr><tr><td></td><td>00</td><td>13 04</td><td colspan="2">FOR APPROVAL</td><td colspan="2">OPRG. DEPT. <u>CTPD</u> ENG. DEPT. <u>AUT-PSAC</u></td><td colspan="2">RIYADH SAUDI ARABIA</td><td colspan="2"></td></tr><tr><td></td><td>REV. NO.</td><td>DATE</td><td colspan="2">DESCRIPTION</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr></table>										AS-BUILT BY _____ DATE _____			CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656		ASSEMBLY DRAWING		<div>الشركة الوطنية لنقل الكهرباء</div> <div> <b>نقل الكهرباء</b> National Grid sa</div>					DRAWN BY <u>RIZ</u> CHECKED BY <u>KVR</u>				13.8kV U/F LOAD SHEDDING - +UFLS01					01	13 48	AS MANUFACTURED		DATE STARTED <u>24.01.2013</u> DATE COMPLETED _____		S/S 8709 - 132/13.8KV IN AL-KHARJ CITY					00	13 04	FOR APPROVAL		OPRG. DEPT. <u>CTPD</u> ENG. DEPT. <u>AUT-PSAC</u>		RIYADH SAUDI ARABIA					REV. NO.	DATE	DESCRIPTION							
AS-BUILT BY _____ DATE _____			CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656		ASSEMBLY DRAWING		<div>الشركة الوطنية لنقل الكهرباء</div> <div> <b>نقل الكهرباء</b> National Grid sa</div>																																																								
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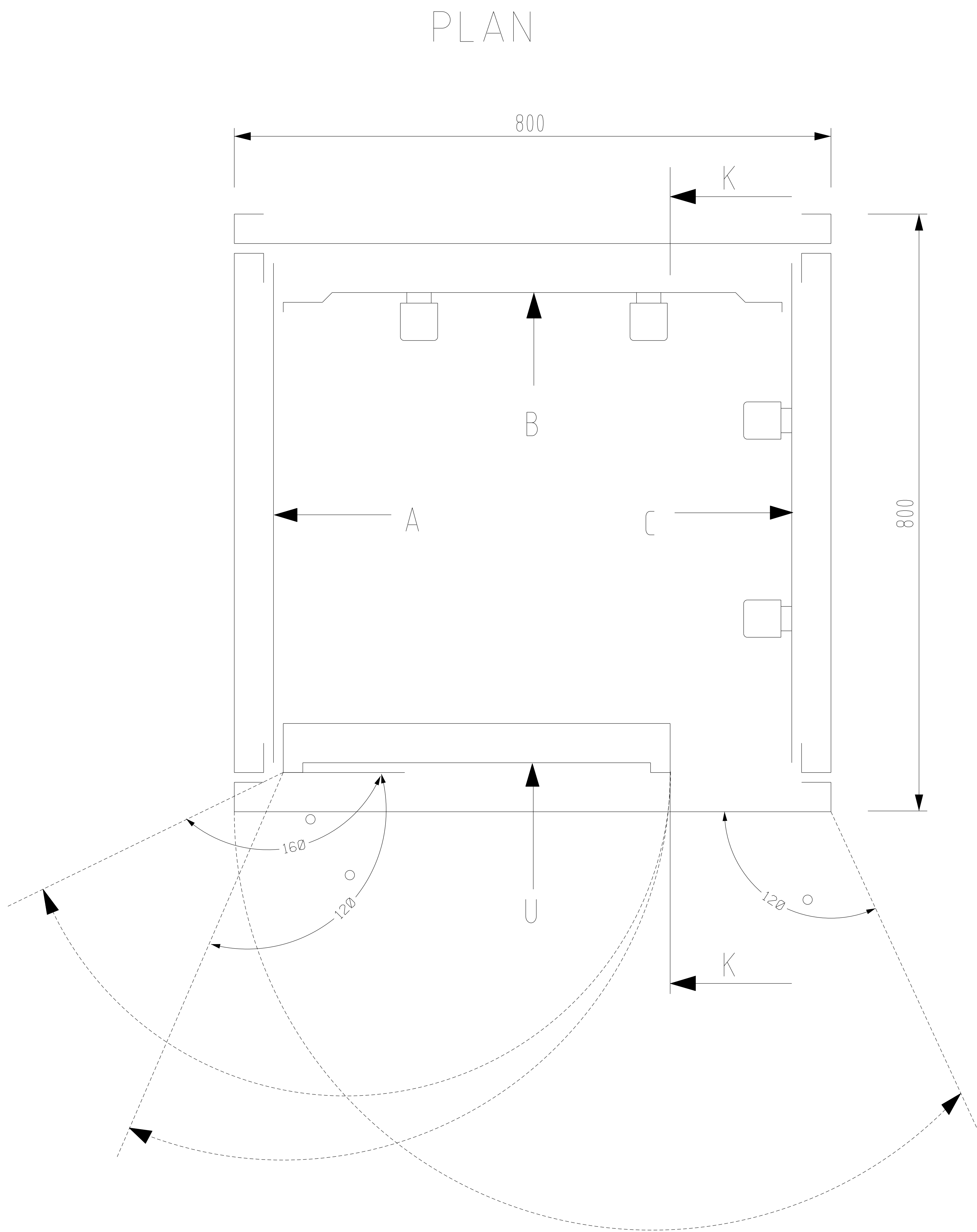
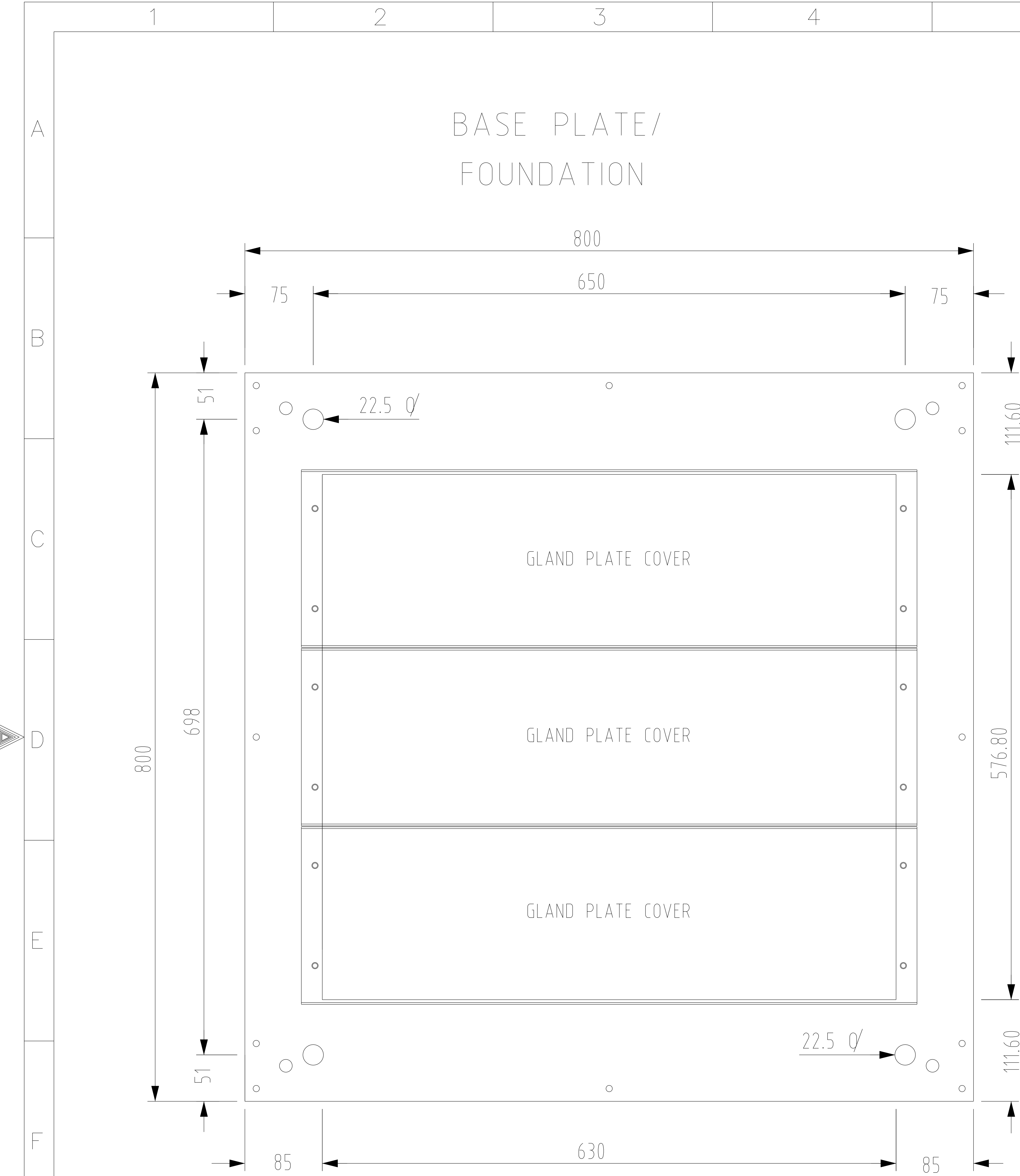
PLANE - B

SCH.REF	DESCRIPTION	TYPE	MAKE
X5	CONTROL CIRCUITS	M6/8.RS	ENTRELEC
X3	AC INCOMING CIRCUITS	D6/8.ST1.RS	ENTRELEC
X4	DC INCOMING CIRCUITS	D6/8.ST1.RS	ENTRELEC

PLANE - C

SCH.REF	DESCRIPTION	TYPE	MAKE
X6	ALARM SUPPLY	M6/8.RS	ENTRELEC
X61	ALARM CIRCUITS	M6/8.SNB	ENTRELEC
X51,X51A	CONTROL CIRCUITS	M6/8.RS	ENTRELEC
X9	SPARE CIRCUITS	M6/8.RS	ENTRELEC
XTJ	TELEPHONE JACK	M6/8.RS	ENTRELEC
XSH	SPACE HEATER	M6/8.RS	ENTRELEC

G	AS-BUILT BY _____ DATE _____		CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656		ASSEMBLY DRAWING		<div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div>	
					DRAWN BY <u>      RIZ      </u> CHECKED BY <u>      KVR      </u>		13.8kV U/F LOAD SHEDDING - +UFLS01		INDEX	
	01	13 48	AS MANUFACTURED		DATE STARTED <u>24.01.2013</u> DATE COMPLETED _____		S/S 8709 - 132/13.8KV IN AL-KHARJ CITY		PLANT NO.	
	00	13 04	FOR APPROVAL		OPRG. DEPT. <u>      CTPD      </u> ENG. DEPT. <u>      AUT-PSAC      </u>		RIYADH		DRAWING NUMBER	
	REV. NO.	DATE	DESCRIPTION				SAUDI ARABIA		SHEET NO.	
									SHT	
									CONT.	
									REV. NO.	
									01	



G	AS-BUILT BY _____ DATE _____		CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656		ASSEMBLY DRAWING		<div>الشركة الوطنية لنقل الكهرباء</div> <div><div><div></div><div></div></div><div>National Grid sa</div></div>						
					DRAWN BY RIZ CHECKED BY KVR		13.8kV U/F LOAD SHEDDING - +UFLS01								
	01	13 48	AS MANUFACTURED		DATE STARTED 24.01.2013 DATE COMPLETED _____		S/S 8709 - 132/13.8KV IN AL-KHARJ CITY		INDEX	PLANT NO.	DRAWING NUMBER		SHEET NO.		REV. NO.
	00	13 04	FOR APPROVAL		OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC		RIYADH SAUDI ARABIA		-	C421	CD-322963		SHT G03	CONT. G04	01

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A

B

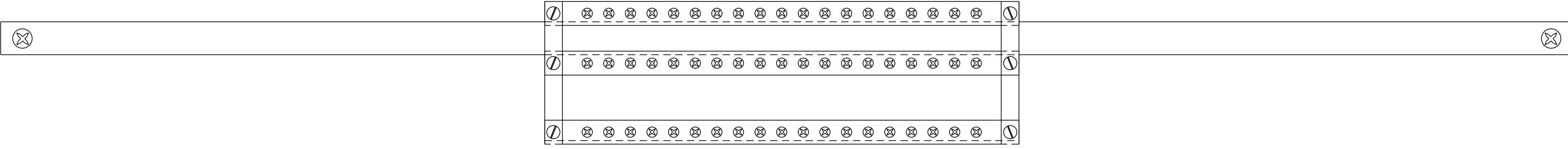
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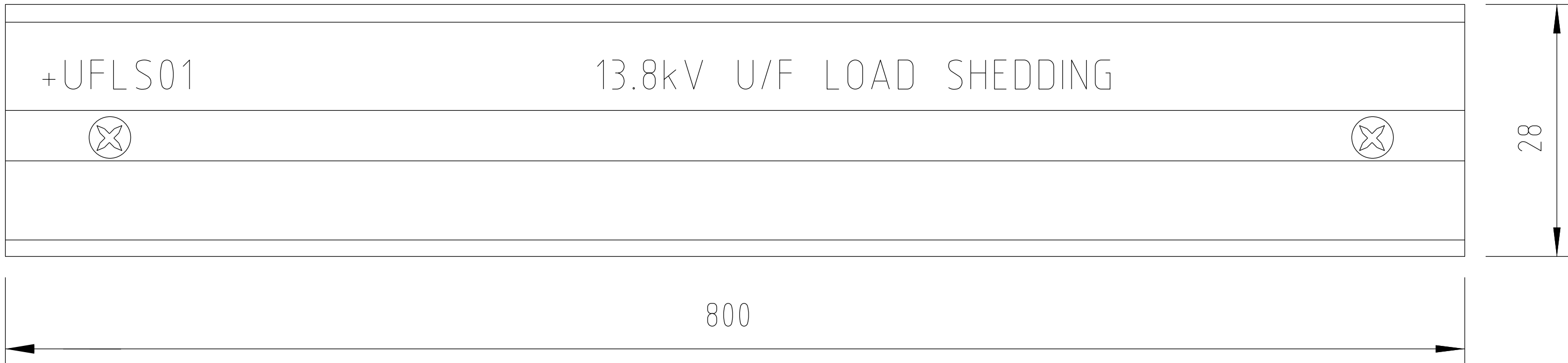
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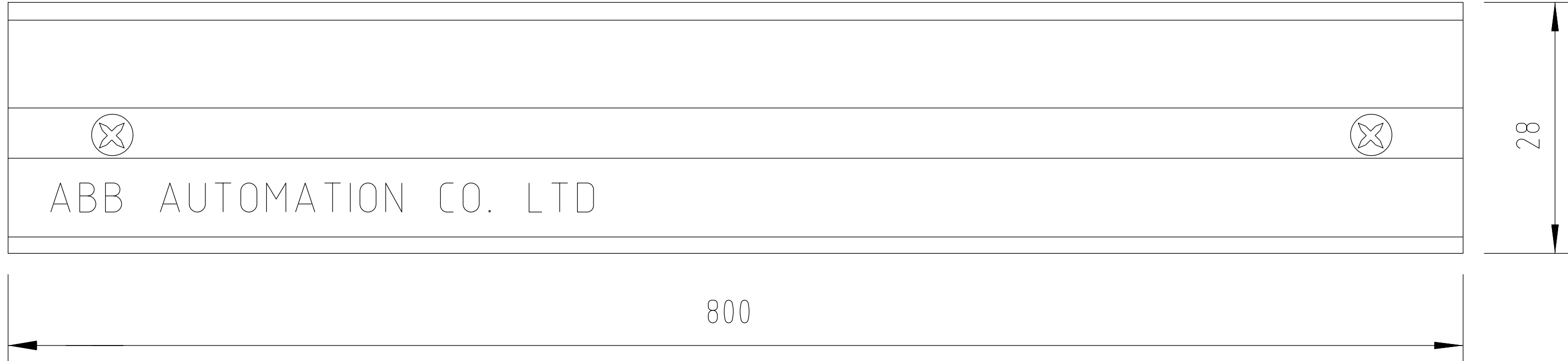


TOP VIEW FOR EARTHING BAR

U PLANE TOP LABEL



U PLANE BOTTOM LABEL



MANUFACTURING LABEL

**ABB**  
ABB Automation Co.Ltd.

PROJECT : National Grid SA  
S/S 8709

ORDER REFERENCE : 2875 RF S13656

YEAR OF MANUFACTURE : 2013

PANEL NO. : +UFLS01

DRAWING NO. : S13656-CD-322964


MADE IN THE KINGDOM OF SAUDI ARABIA

AS-BUILT BY \_\_\_\_\_ DATE \_\_\_\_\_ CONTRACT NO. 11131113/00 JOB ORDER NO. S-13656

Ø1	13 48	AS MANUFACTURED
ØØ	13 Ø4	FOR APPROVAL
REV. NO.	DATE	DESCRIPTION

DRAWN BY _____ RIZ _____ CHECKED BY _____ KVR _____
DATE STARTED 24.01.2013 DATE COMPLETED _____
OPRG. DEPT. _____ CTPD _____ ENG. DEPT. _____ AUT-PSAC _____

ASSEMBLY DRAWING
13.8kV U/F LOAD SHEDDING - +UFLS01
S/S 8709 - 132/13.8KV IN AL-KHARJ CITY
RIYADH SAUDI ARABIA


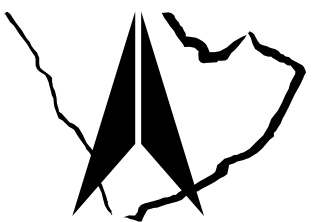
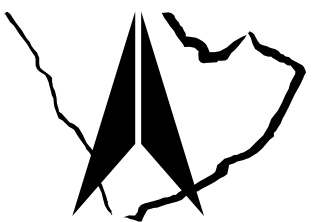
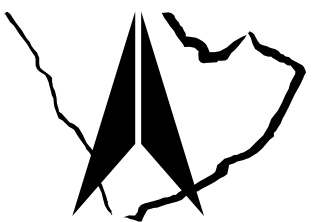
الشركة الوطنية لنقل الكهرباء			 نقل الكهرباء National Grid SA		
INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO.		REV. NO.
-	C421	CD-322963	SHT	CONT.	01
			G04	G05	

NG/D2-D (2012/01)

DMS

VECTOR

NGD200

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E	CONTRACT NO. : 11131113/00																																																																
	TITLE : List of Apparatus - +UFLS01 [U/F LOAD SHEDDING]																																																																
F																																																																	
G	<table><tr><td colspan="3">AS-BUILT BY _____ DATE _____</td><td colspan="2">CONTRACT NO. 11131113/00</td><td colspan="2">JOB ORDER NO. S-13656</td><td colspan="2">LIST OF APPARATUS</td><td colspan="2"><div>الشركة الوطنية لنقل الكهرباء</div><div> <b>نقل الكهرباء</b> National Grid SA</div></td></tr><tr><td></td><td></td><td></td><td colspan="2">DRAWN BY <u>RIZ</u> CHECKED BY <u>KVR</u></td><td colspan="2"></td><td colspan="2">13.8kV U/F LOAD SHEDDING - +UFLS01</td><td colspan="2">INDEX PLANT NO. DRAWING NUMBER SHEET NO. REV. NO.</td></tr><tr><td></td><td>01</td><td>13 48</td><td colspan="2">AS MANUFACTURED</td><td colspan="2">DATE STARTED <u>24.01.2013</u> DATE COMPLETED _____</td><td colspan="2">S/S 8709 - 132/13.8KV IN AL-KHARJ CITY</td><td colspan="2">- C421 CD-322963 L00 L01 01</td></tr><tr><td></td><td>00</td><td>13 04</td><td colspan="2">FOR APPROVAL</td><td colspan="2">OPRG. DEPT. <u>CTPD</u> ENG. DEPT. <u>AUT-PSAC</u></td><td colspan="2">RIYADH SAUDI ARABIA</td><td colspan="2"></td></tr><tr><td></td><td>REV. NO.</td><td>DATE</td><td colspan="2">DESCRIPTION</td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td></tr></table>										AS-BUILT BY _____ DATE _____			CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656		LIST OF APPARATUS		<div>الشركة الوطنية لنقل الكهرباء</div> <div> <b>نقل الكهرباء</b> National Grid SA</div>					DRAWN BY <u>RIZ</u> CHECKED BY <u>KVR</u>				13.8kV U/F LOAD SHEDDING - +UFLS01		INDEX PLANT NO. DRAWING NUMBER SHEET NO. REV. NO.			01	13 48	AS MANUFACTURED		DATE STARTED <u>24.01.2013</u> DATE COMPLETED _____		S/S 8709 - 132/13.8KV IN AL-KHARJ CITY		- C421 CD-322963 L00 L01 01			00	13 04	FOR APPROVAL		OPRG. DEPT. <u>CTPD</u> ENG. DEPT. <u>AUT-PSAC</u>		RIYADH SAUDI ARABIA					REV. NO.	DATE	DESCRIPTION							
AS-BUILT BY _____ DATE _____			CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656		LIST OF APPARATUS		<div>الشركة الوطنية لنقل الكهرباء</div> <div> <b>نقل الكهرباء</b> National Grid SA</div>																																																								
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	00	13 04	FOR APPROVAL		OPRG. DEPT. <u>CTPD</u> ENG. DEPT. <u>AUT-PSAC</u>		RIYADH SAUDI ARABIA																																																										
	REV. NO.	DATE	DESCRIPTION																																																														







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G	AS-BUILT BY _____ DATE _____			CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656		LIST OF APPARATUS 13.8kV U/F LOAD SHEDDING - +UFLS01 S/S 8709 - 132/13.8KV IN AL-KHARJ CITY RIYADH SAUDI ARABIA			<div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div>				
	DRAWN BY _____ RIZ _____ CHECKED BY _____ KVR			DATE STARTED 24.01.2013 DATE COMPLETED _____											
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	00	13 04	FOR APPROVAL		OPRG. DEPT. _____ CTPD _____ ENG. DEPT. _____ AUT-PSAC		-		C421	CD-322963		SHT		CONT.	01
	REV. NO.	DATE	DESCRIPTION										L03	L04	

DMS

VECTOR

NG/D2-D (2012/01)

NGD200

1	2	3	4	5	6	7	8	9	10
A	SR. NO.	ITEM DESIGNATION	D E S C R I P T I O N		SHEET NO.	QTY.	TYPE	MAKE	ORDERING INFORMATION
	21	X3	SPRING LOADED TERMINAL BLOCKS DISCONNECTIBLE FOR AC CIRCUITS		301	10	D6/8.ST1.RS	ENTRELEC	1SNA 115 831 R0400
		X4	SPRING LOADED TERMINAL BLOCKS DISCONNECTIBLE FOR DC CIRCUITS		301	5	D6/8.ST1.RS	ENTRELEC	1SNA 115 831 R0400
B		XTJ	SPRING LOADED TERMINAL BLOCK FOR TELEPHONE JACK		301	4	M6/8.RS	ENTRELEC	1SNA 115 685 R1200
	22	X51A	SPRING LOADED TERMINAL BLOCKS SOLID TYPE FOR PROT.CIRCUITS		301	15	M6/8.RS	ENTRELEC	1SNA 115 685 R1200
		X5	SPRING LOADED TERMINAL BLOCKS SOLID TYPE FOR PROT.CIRCUITS		301	90	M6/8.RS	ENTRELEC	1SNA 115 685 R1200
C		X61	SPRING LOADED TERMINAL BLOCK FOR LOCAL ALARM		301	15	M6/8.RS	ENTRELEC	1SNA 115 685 R1200
		X51	SPRING LOADED TERMINAL BLOCKS SOLID TYPE FOR PROT.CIRCUITS		301	60	M6/8.RS	ENTRELEC	1SNA 115 685 R1200
		X6	SPRING LOADED TERMINAL BLOCKS SOLID TYPE FOR PROT.CIRCUITS		301	5	M6/8.RS	ENTRELEC	1SNA 115 685 R1200
D		XSH	SPRING LOADED TERMINAL BLOCK FOR SPACE HEATER		301	5	M6/8.RS	ENTRELEC	1SNA 115 688 R2500
		X9	SPRING LOADED TERMINAL BLOCK FOR SPARE CONTACT		301	50	M6/8.RS	ENTRELEC	1SNA 115 685 R1200
E									
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AS-BUILT BY _____		DATE _____	CONTRACT NO. 11131113/00	JOB ORDER NO. S-13656
01	13 48	AS MANUFACTURED	DRAWN BY RIZ CHECKED BY KVR	
00	13 04	FOR APPROVAL	DATE STARTED 24.01.2013 DATE COMPLETED _____	
REV. NO.	DATE	DESCRIPTION	OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC	

LIST OF APPARATUS	
13.8kV U/F LOAD SHEDDING - +UFLS01	
S/S 8709 - 132/13.8KV IN AL-KHARJ CITY	
RIYADH	SAUDI ARABIA

الشركة الوطنية لنقل الكهرباء		National Grid sa		
INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO.	REV. NO.
-	C421	CD-322963	SHT L06 CONT. L07	01

1		2		3		4		5		6		7		8		9		10		
A				LABEL REF.	LABEL ENGRAVING		MATERIALS		ENGRAVING		LABEL SIZE		LETTER SIZE							
				U05.5001	U05.5001 94A-1.1		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
				U05.5002	U05.5002 94A-1.2		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
				U05.5003	U05.5003 94A-2.1		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
B				U05.5004	U05.5004 94A-2.2		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
				U05.5005	U05.5005 94A-3		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
				U05.5006	U05.5006 94A-4		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
				U10.5001	U10.5001 94B-1.1		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
C				U10.5002	U10.5002 94B-1.2		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
				U10.5003	U10.5003 94B-2.1		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
				U10.5004	U10.5004 94B-2.2		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
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D				U10.5006	U10.5006 94B-4		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
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				U14.5002	U14.5002 S02		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
				U14.5003	U14.5003 S03		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
E				U14.5004	U14.5004 S04		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
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				U14.5007	U14.5007 L1		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
F				U14.5008	U14.5008 L2		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		4mm							
				U17.101	U17.101 74UF		TRAFOLITE		BLACK LETTERS ON WHITE BACKGROUND		50X15mm		3mm							
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				U17.125	U17.125 BIX		ALUMINUM PAPER FOIL		BLACK LETTERS		50X10mm		3mm							
F				U17.137	U17.137 S1305X		ALUMINUM PAPER FOIL		BLACK LETTERS		50X10mm		3mm							
				U17.337	U17.337 S1205X		ALUMINUM PAPER FOIL		BLACK LETTERS		50X10mm		3mm							
				U17.149	U17.149 S120X		ALUMINUM PAPER FOIL		BLACK LETTERS		50X10mm		3mm							
				U17.349	U17.349 S320X		ALUMINUM PAPER FOIL		BLACK LETTERS		50X10mm		3mm							
G	AS-BUILT BY _____ DATE _____			CONTRACT NO. 11131113/00			JOB ORDER NO. S-13656			LIST OF APPARATUS				<div>الشركة الوطنية لنقل الكهرباء</div> <div> <b>نقل الكهرباء</b> National Grid SA</div>						
				DRAWN BY _____ RIZ _____ CHECKED BY _____ KVR _____			13.8kV U/F LOAD SHEDDING - +UFLS01													
	01	13 48	AS MANUFACTURED	DATE STARTED <u>24.01.2013</u> DATE COMPLETED _____			S/S 8709 - 132/13.8KV IN AL-KHARJ CITY													
	00	13 04	FOR APPROVAL	OPRG. DEPT. _____ CTPD _____ ENG. DEPT. _____ AUT-PSAC _____			RIYADH SAUDI ARABIA													
	REV. NO.	DATE	DESCRIPTION																	
										INDEX	PLANT NO.	DRAWING NUMBER		SHEET NO.		REV. NO.				
										-	C421	CD-322963		SHT		CONT.				
														L07		L08				

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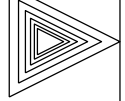
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LABEL REF.	LABEL ENGRAVING	MATERIALS	ENGRAVING	LABEL SIZE	LETTER SIZE
C1	C1 127V AC SUPPLY MCB	TRAFOLITE	BLACK LETTERS ON WHITE BACKGROUND	50X15mm	4mm
C2	C2 220V AC SUPPLY MCB	TRAFOLITE	BLACK LETTERS ON WHITE BACKGROUND	50X15mm	4mm
C3	C3 THERMOSTAT	TRAFOLITE	BLACK LETTERS ON WHITE BACKGROUND	50X15mm	4mm
C7	C7 ON/OFF SWITCH	TRAFOLITE	BLACK LETTERS ON WHITE BACKGROUND	50X15mm	4mm
DS	DS DOOR SWITCH	TRAFOLITE	BLACK LETTERS ON WHITE BACKGROUND	50X15mm	4mm
IL	IL ILLUMINATION LAMP	TRAFOLITE	BLACK LETTERS ON WHITE BACKGROUND	50X15mm	4mm
SH	SH SPACE HEATER	TRAFOLITE	BLACK LETTERS ON WHITE BACKGROUND	50X15mm	4mm

AS-BUILT BY _____ DATE _____			CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656		LIST OF APPARATUS		<div>الشركة الوطنية لنقل الكهرباء</div> <div> <b>نقل الكهرباء</b> National Grid sa</div>					
01	13 48	AS MANUFACTURED	DRAWN BY _____ RIZ _____ CHECKED BY _____ KVR			13.8kV U/F LOAD SHEDDING - +UFLS01								
00	13 04	FOR APPROVAL	DATE STARTED 24.01.2013 DATE COMPLETED _____			S/S 8709 - 132/13.8KV IN AL-KHARJ CITY		INDEX	PLANT NO.	DRAWING NUMBER		SHEET NO.		REV. NO.
REV. NO.	DATE	DESCRIPTION	OPRG. DEPT. _____ CTPD _____ ENG. DEPT. _____ AUT-PSAC			RIYADH SAUDI ARABIA		-	C421	CD-322963		SHT	CONT.	01
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A			POWER SYSTEMS NETWORK MANAGEMENT PROTECTION AND SUBSTATION AUTOMATION SYSTEMS WBS NO: S-13656					ABB AUTOMATION COMPANY LTD., 414, AL-KHARJ ROAD SECOND INDUSTRIAL CITY RIYADH-11383 K.S.A																																																																						
B																																																																														
C	CONTRACTOR : ABB Contracting Company																																																																													
	CLIENT : National Grid sa																																																																													
D	PROJECT : CONSTRUCTION OF NEW 132/13.8kV SS 8709 IN AL-KHARJ CITY																																																																													
	SUBSTATION : S/S 8709																																																																													
E	CONTRACT NO. : 11131113/00																																																																													
	TITLE : Schematic Drawing - +UFLS01 [U/F LOAD SHEDDING]																																																																													
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G	<table><tr><td colspan="3">AS-BUILT BY _____ DATE _____</td><td colspan="2">CONTRACT NO. 11131113/00</td><td colspan="2">JOB ORDER NO. S-13656</td><td colspan="3">COVER SHEET</td><td colspan="2"><div>الشركة الوطنية لنقل الكهرباء</div><div> <b>نقل الكهرباء</b> National Grid sa</div></td></tr><tr><td></td><td></td><td></td><td colspan="2">DRAWN BY <u>RIZ</u> CHECKED BY <u>KVR</u></td><td colspan="3">13.8kV U/F LOAD SHEDDING - +UFLS01</td><td colspan="2">INDEX</td><td>PLANT NO.</td><td>DRAWING NUMBER</td><td colspan="2">SHEET NO. REV. NO.</td></tr><tr><td></td><td>01</td><td>13 48</td><td colspan="2">AS MANUFACTURED</td><td colspan="3">DATE STARTED <u>24.01.2013</u> DATE COMPLETED _____</td><td colspan="2">S/S 8709 - 132/13.8KV IN AL-KHARJ CITY</td><td></td><td></td><td colspan="2">SHT CONT.</td></tr><tr><td></td><td>00</td><td>13 04</td><td colspan="2">FOR APPROVAL</td><td colspan="3">OPRG. DEPT. <u>CTPD</u> ENG. DEPT. <u>AUT-PSAC</u></td><td colspan="2">RIYADH SAUDI ARABIA</td><td>-</td><td>C421</td><td>CD-322964</td><td>000 001 01</td></tr><tr><td></td><td>REV. NO.</td><td>DATE</td><td colspan="2">DESCRIPTION</td><td colspan="3"></td><td colspan="2"></td><td></td><td></td><td colspan="2"></td></tr></table>										AS-BUILT BY _____ DATE _____			CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656		COVER SHEET			<div>الشركة الوطنية لنقل الكهرباء</div> <div> <b>نقل الكهرباء</b> National Grid sa</div>					DRAWN BY <u>RIZ</u> CHECKED BY <u>KVR</u>		13.8kV U/F LOAD SHEDDING - +UFLS01			INDEX		PLANT NO.	DRAWING NUMBER	SHEET NO. REV. NO.			01	13 48	AS MANUFACTURED		DATE STARTED <u>24.01.2013</u> DATE COMPLETED _____			S/S 8709 - 132/13.8KV IN AL-KHARJ CITY				SHT CONT.			00	13 04	FOR APPROVAL		OPRG. DEPT. <u>CTPD</u> ENG. DEPT. <u>AUT-PSAC</u>			RIYADH SAUDI ARABIA		-	C421	CD-322964	000 001 01		REV. NO.	DATE	DESCRIPTION										
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AS-BUILT BY _____ DATE _____			CONTRACT NO. 11131113/00	JOB ORDER NO. S-13656
01	13 48	AS MANUFACTURED	DRAWN BY <u>RIZ</u> CHECKED BY <u>KVR</u>	
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REV. NO.	DATE	DESCRIPTION	OPRG. DEPT. <u>CTPD</u>	ENG. DEPT. <u>AUT-PSAC</u>

GRAPHICAL SYMBOLS FOR DIAGRAMS	
13.8kV U/F LOAD SHEDDING - +UFLS01	
S/S 8709 - 132/13.8KV IN AL-KHARJ CITY	
RIYADH	SAUDI ARABIA

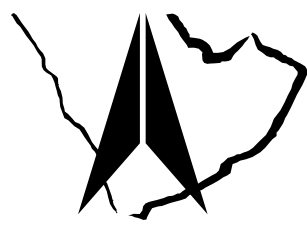
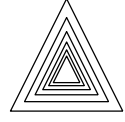
الشركة الوطنية لنقل الكهرباء National Grid sa				
INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO.	
-	C421	CD-322964	SHT	CONT.
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			REV. NO. 01	







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A	LEGENDS									
B	<div><div><div>*R1</div><div>*R2</div><div>*R3</div><div>±LSC</div><div>*S1</div><div>*S2</div><div>*S3</div><div>*S4</div><div>ISC*</div><div>ISCL</div><div>ISR*</div><div>ISRL</div><div>FL</div><div>BB RS*</div><div>BB CBF*/CBF*</div><div>FR1*</div><div>FR2*</div><div>ANN*</div><div>AD</div><div>R</div><div>CR</div><div>ECC</div><div>LOCAL</div><div>REMOTE</div><div>XECC</div><div>XECCC</div><div>XECCO</div><div>XCR</div><div>XRC</div><div>XRO</div><div>XRCT</div><div>XRCS</div><div>XRO</div><div>XCRO</div><div>XCRC</div></div><div><div>DC SUPPLY - MAIN PROTECTION / TCS</div><div>DC SUPPLY - SECONDARY PROTECTION / TCS</div><div>DC SUPPLY - BACK UP PROTECTION</div><div>DC SUPPLY - LOAD SHEDDING CONTROL</div><div>DC SUPPLY - ALARM UNIT - 1</div><div>DC SUPPLY - ALARM UNIT - 2</div><div>DC SUPPLY - ALARM UNIT - 3</div><div>DC SUPPLY - ALARM UNIT - 4</div><div>DC SUPPLY - INDICATIONS IN CONTROL PANEL</div><div>DC SUPPLY - LAMP TEST IN CONTROL PANEL</div><div>DC SUPPLY - INDICATIONS IN RELAY PANEL</div><div>DC SUPPLY - LAMP TEST IN RELAY PANEL</div><div>DC SUPPLY - FLASHING CIRCUIT</div><div>DC SUPPLY - BUS BAR - PROTECTION RESET</div><div>DC SUPPLY - CBF PROTECTION</div><div>DC SUPPLY - FAULT RECORDER - 1</div><div>DC SUPPLY - FAULT RECORDER - 2</div><div>DC SUPPLY - ALARM UNITS</div><div>ACKNOWLEDGE BUS - ALARM SYSTEM</div><div>RESET BUS - ALARM SYSTEM</div><div>CONTROL ROOM</div><div>ENERGY CONTROL CENTRE</div><div>THE LOCATION OF CONTROLLED DEVICE</div><div>ANY OTHER LOCATION NOT LOCAL</div><div>CB / ISOLATOR ZYX - CONTROL COMMON TO SCADA</div><div>CB / ISOLATOR ZYX - CONTROL CLOSE FROM SCADA</div><div>CB / ISOLATOR ZYX - CONTROL OPEN FROM SCADA</div><div>CB / ISOLATOR ZYX - OPERATION FROM CONTROL ROOM</div><div>CB / ISOLATOR ZYX - CLOSE FROM REMOTE</div><div>CB / ISOLATOR ZYX - OPEN FROM REMOTE</div><div>CB ZYX - REMOTE CLOSE "TEST" POSITION</div><div>CB ZYX - REMOTE CLOSE "SERVICE" POSITION</div><div>CB ZYX - REMOTE OPEN</div><div>CB ZYX - OPEN FROM CONTROL ROOM</div><div>CB ZYX - CLOSE FROM CONTROL ROOM</div><div>(ZYX - DENOTES DEVICE NO e.g. 134,136 OR 130 ETC.</div><div>Ex: 34ECCC DENOTES CLOSING OF ISOLATOR 134 FROM SCADA)</div><div>30CRC DENOTES CB 130 CLOSE COMMAND FROM CONTROL ROOM)</div></div><div><div>ON</div><div>OFF</div><div>A</div><div>T</div><div>S</div><div>CS</div><div>CT</div><div>LS</div><div>LT</div><div>LC</div><div>LO</div><div>RO</div><div>CB NORMALLY OPEN AUXILIARY CONTACT</div><div>CB NORMALLY CLOSED AUXILIARY CONTACT</div><div>COMMON</div><div>TEST POSITION</div><div>SERVICE POSITION</div><div>CLOSE IN SERVICE POSITION</div><div>CLOSE IN TEST POSITION</div><div>LOCAL SERVICE</div><div>LOCAL TEST</div><div>LOCAL CLOSE</div><div>LOCAL OPEN</div><div>REMOTE OPEN</div></div></div>									
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G	AS-BUILT BY _____ DATE _____		CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656		COMMON LEGEND			
			DRAWN BY RIZ		CHECKED BY KVR		13.8kV U/F LOAD SHEDDING - +UFLS01			
	01	13 48	AS MANUFACTURED		DATE STARTED 24.01.2013		S/S 8709 - 132/13.8KV IN AL-KHARJ CITY			
	00	13 04	FOR APPROVAL		DATE COMPLETED _____		RIYADH SAUDI ARABIA			
REV. NO.		DATE	DESCRIPTION		OPRG. DEPT. CTPD		ENG. DEPT. AUT-PSAC			



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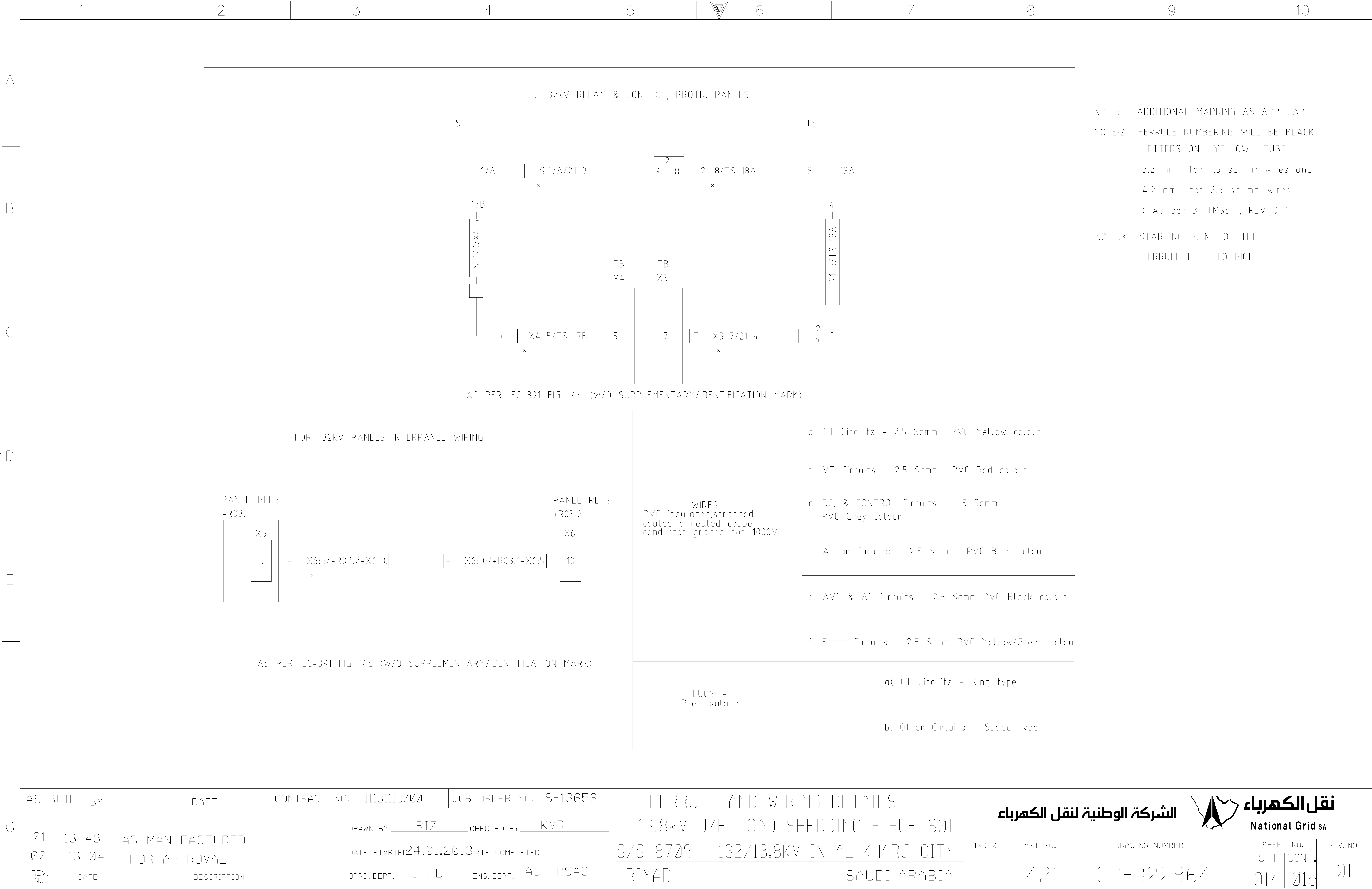
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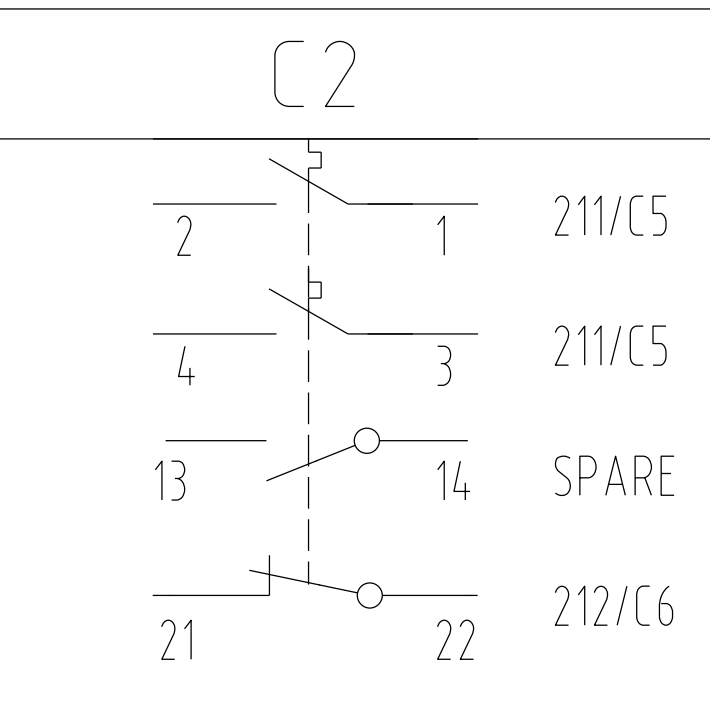
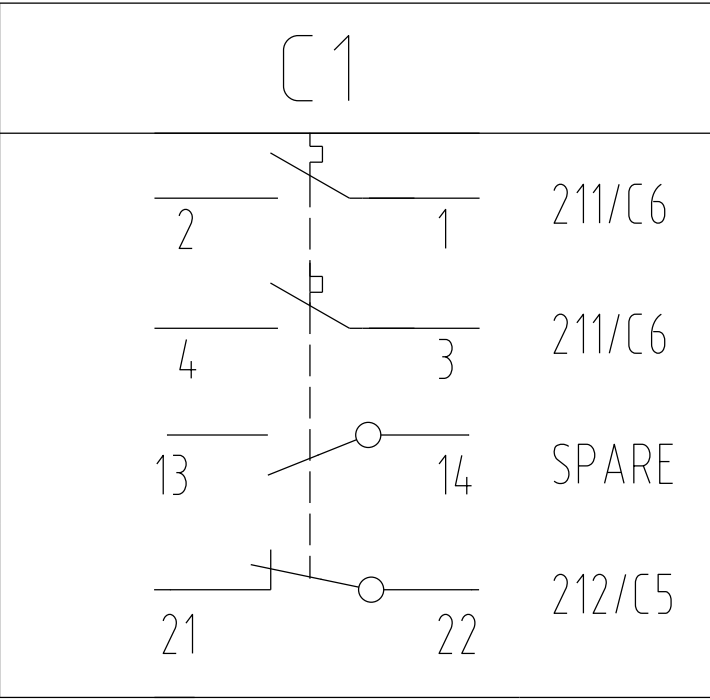
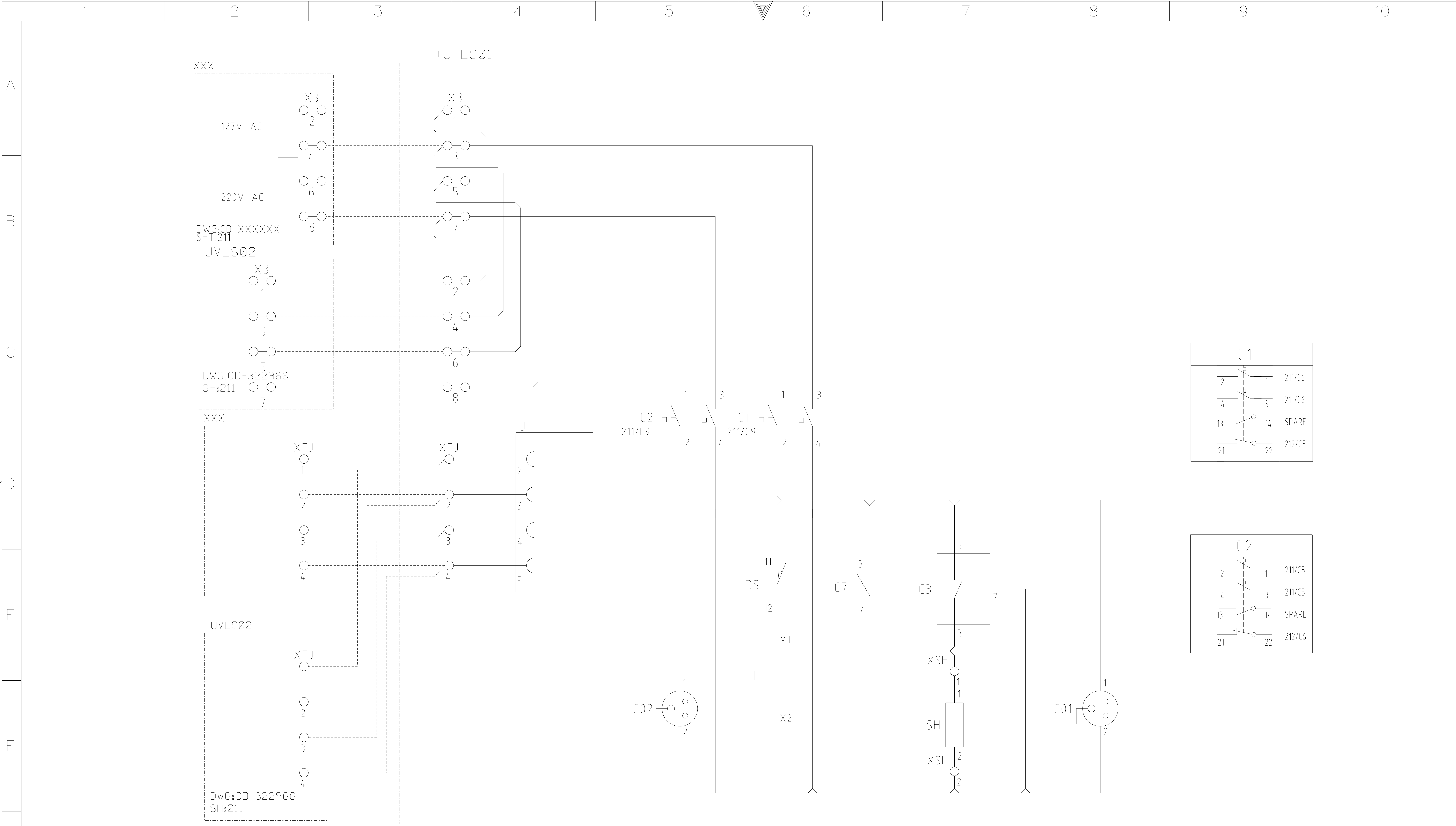
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AS-BUILT BY _____ DATE _____			CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656		DRAWING REFERENCES			<div>الشركة الوطنية لنقل الكهرباء</div> <div>نقل الكهرباء</div> <div>National Grid sa</div>																																																											
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AS-BUILT BY _____ DATE _____			CONTRACT NO. 11131113/00		JOB ORDER NO. S-13656	
01	13 48	AS MANUFACTURED	DRAWN BY RIZ		CHECKED BY KVR	
00	13 04	FOR APPROVAL	DATE STARTED 24.01.2013		DATE COMPLETED _____	
REV. NO.	DATE	DESCRIPTION	OPRG. DEPT. CTPD		ENG. DEPT. AUT-PSAC	

AC SUPPLY FOR ILLUMINATION & POWER SOCKET						
13.8kV U/F LOAD SHEDDING - +UFLS01						
S/S 8709 - 132/13.8KV IN AL-KHARJ CITY						
RIYADH SAUDI ARABIA						

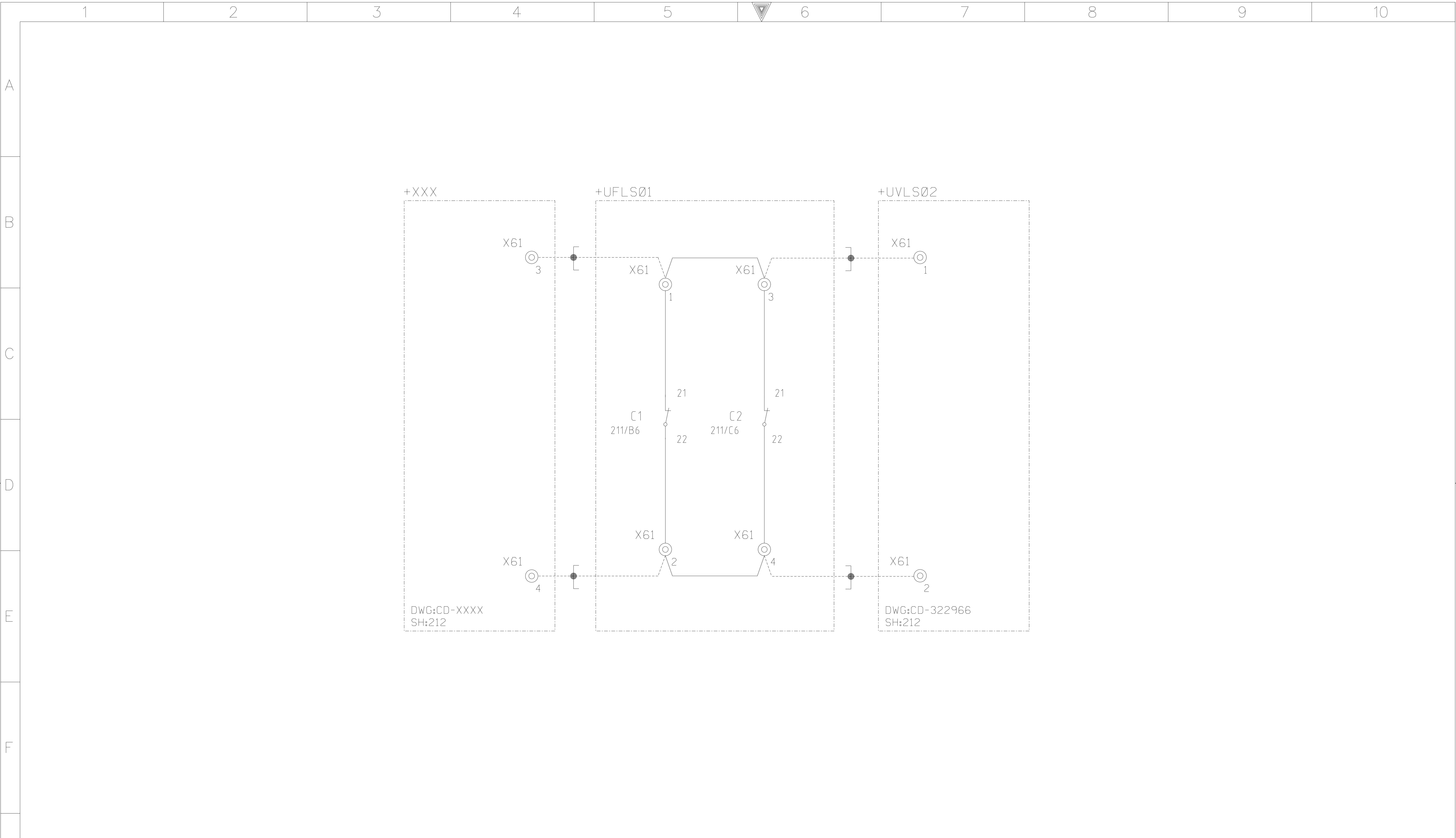
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National Grid sa

INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO.		REV. NO.
-	C421	CD-322964	SHT 211	CONT. 212	01



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AS-BUILT BY \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACT NO. 11131113/00

JOB ORDER NO. S-13656

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REV. NO.

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DATE STARTED 24.01.2013 DATE COMPLETED \_\_\_\_\_

OPRG. DEPT. \_\_\_\_\_ CTPD \_\_\_\_\_ ENG. DEPT. \_\_\_\_\_ AUT-PSAC

CUB. LIGHTING, HEATER & SOCKET ALARM CKT.

13.8kV U/F LOAD SHEDDING - +UFLS01

S/S 8709 - 132/13.8KV IN AL-KHARJ CITY

RIYADH SAUDI ARABIA

الشركة الوطنية لنقل الكهرباء

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National Grid SA

INDEX

PLANT NO.

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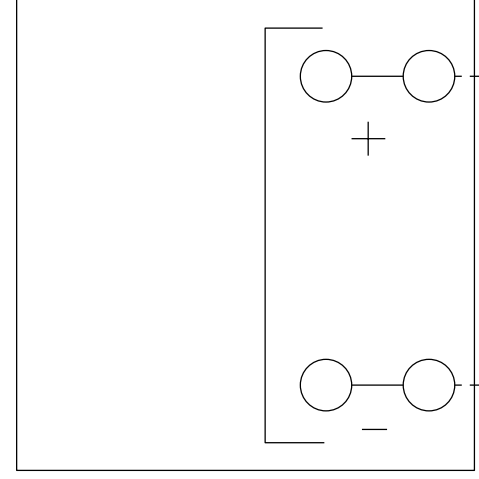
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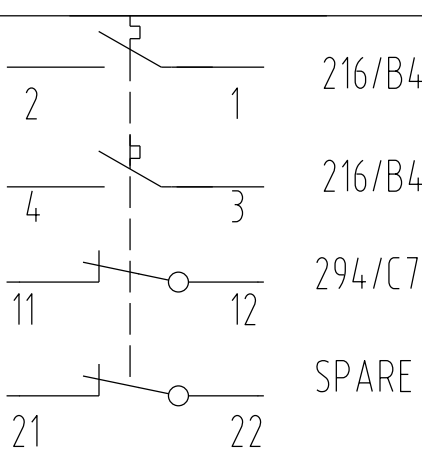
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LS+  
221/A1

LS-  
221/F1

LOAD SHEDDING  
DC SUPPLY  
BUS A

Q1



AS-BUILT BY \_\_\_\_\_ DATE \_\_\_\_\_ CONTRACT NO. 11131113/00 JOB ORDER NO. S-13656

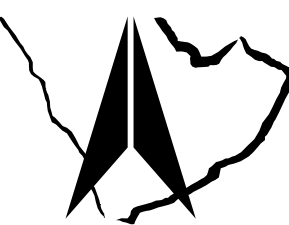
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REV. NO. DATE DESCRIPTION OPRG. DEPT. CTPD ENG. DEPT. AUT-PSAC

DC SUPPLY DISTRIBUTION - BUS A&B  
13.8kV U/F LOAD SHEDDING - +UFLS01  
S/S 8709 - 132/13.8KV IN AL-KHARJ CITY  
RIYADH SAUDI ARABIA

الشركة الوطنية لنقل الكهرباء



نقل الكهرباء  
National Grid sa

INDEX	PLANT NO.	DRAWING NUMBER	SHEET NO.	REV. NO.
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NG/D2-D (2012/01)

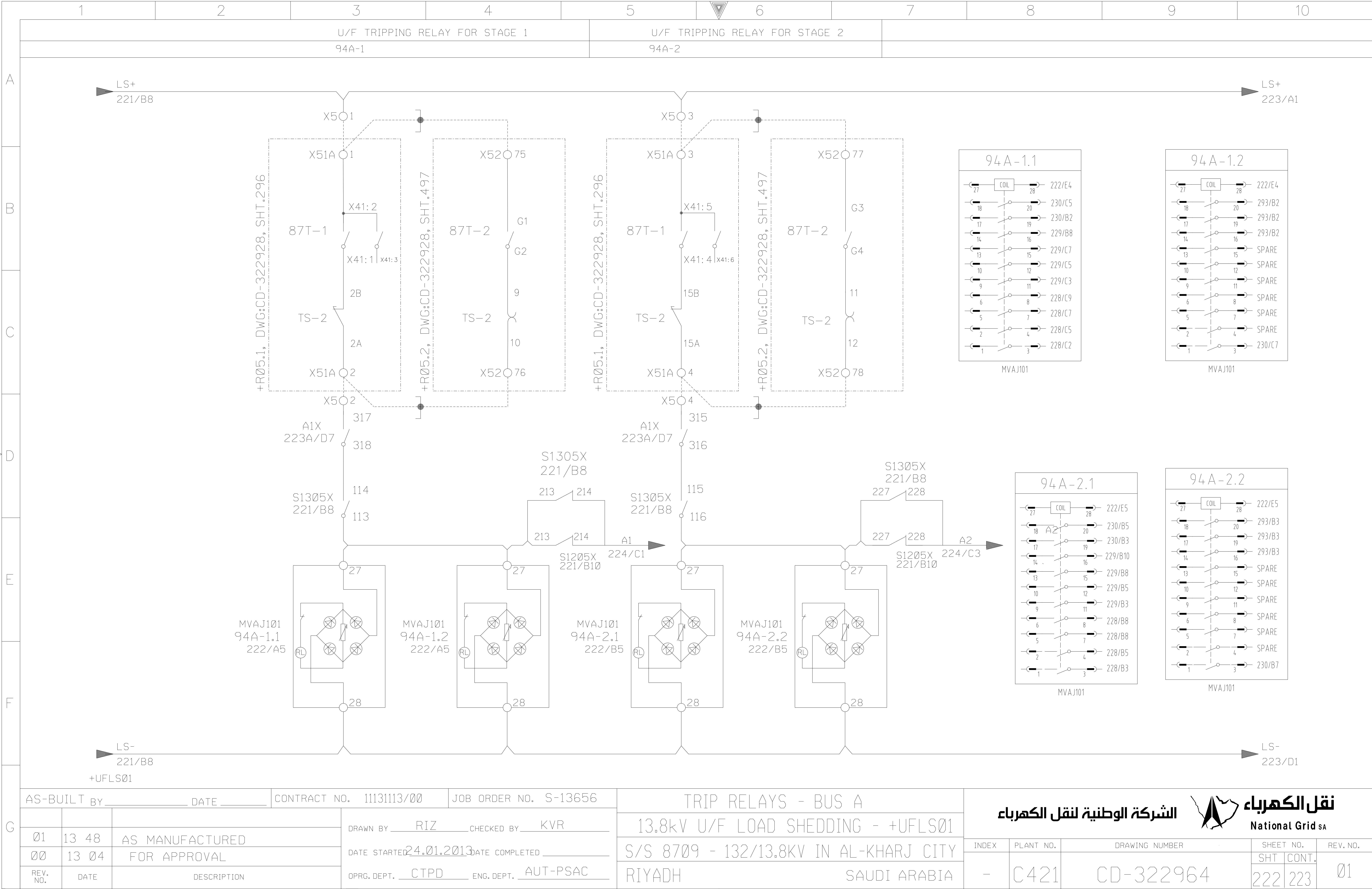
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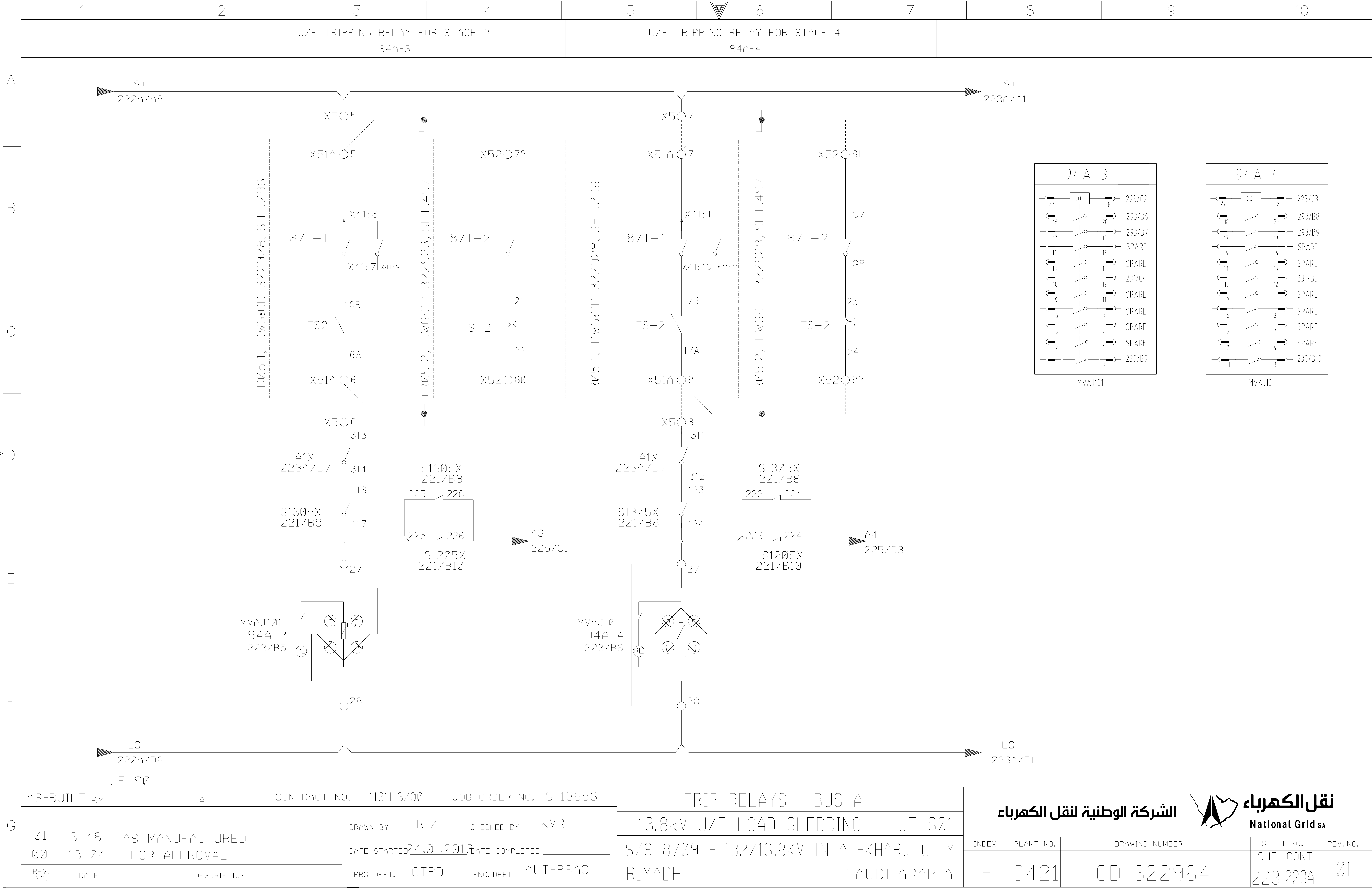
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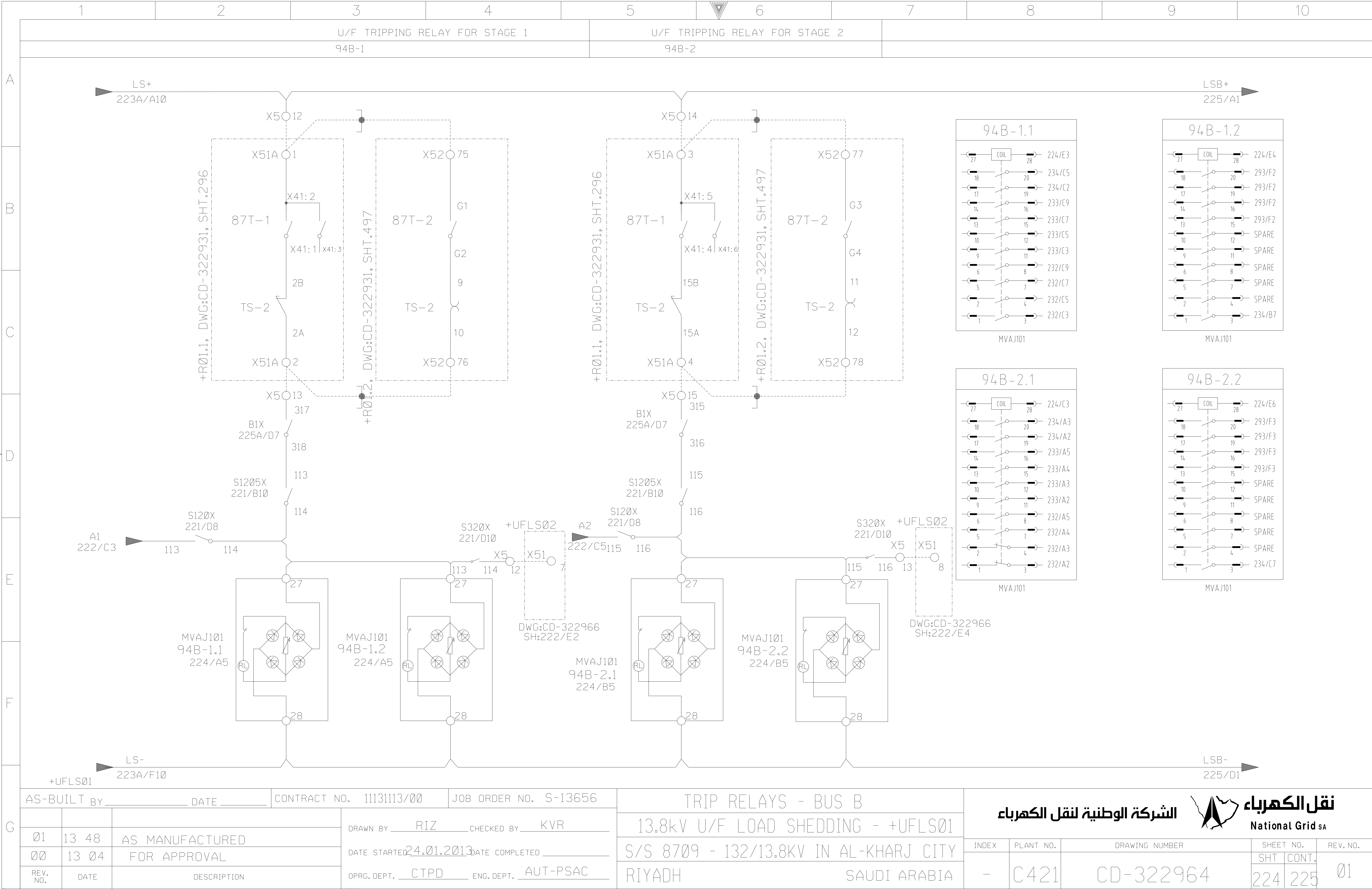






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LSB-  
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AS-BUILT BY \_\_\_\_\_ DATE \_\_\_\_\_

CONTRACT NO. 11131113/00

JOB ORDER NO. S-13656

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AS MANUFACTURED

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13 04

FOR APPROVAL

REV. NO.

DATE

DESCRIPTION

DRAWN BY RIZ

CHECKED BY KVR

DATE STARTED 24.01.2013

DATE COMPLETED \_\_\_\_\_

OPRG. DEPT. CTPD

ENG. DEPT. AUT-PSAC

TRIP RELAYS - BUS B

13.8kV U/F LOAD SHEDDING - +UFLS01

S/S 8709 - 132/13.8KV IN AL-KHARJ CITY

RIYADH SAUDI ARABIA

الشركة الوطنية لنقل الكهرباء

نقل الكهرباء

National Grid sa

INDEX

PLANT NO.

DRAWING NUMBER

SHEET NO.

REV. NO.

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C421

CD-322964

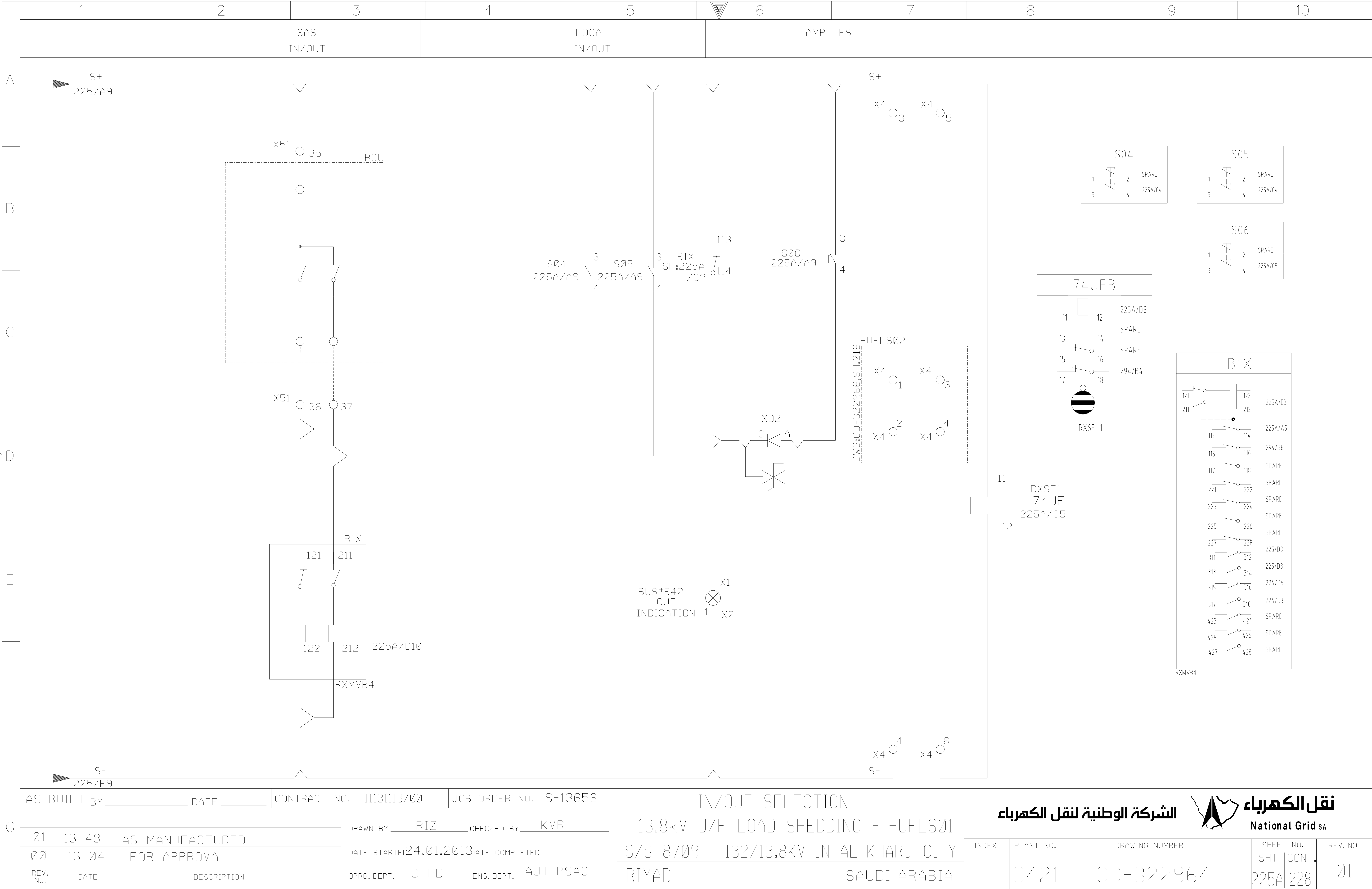
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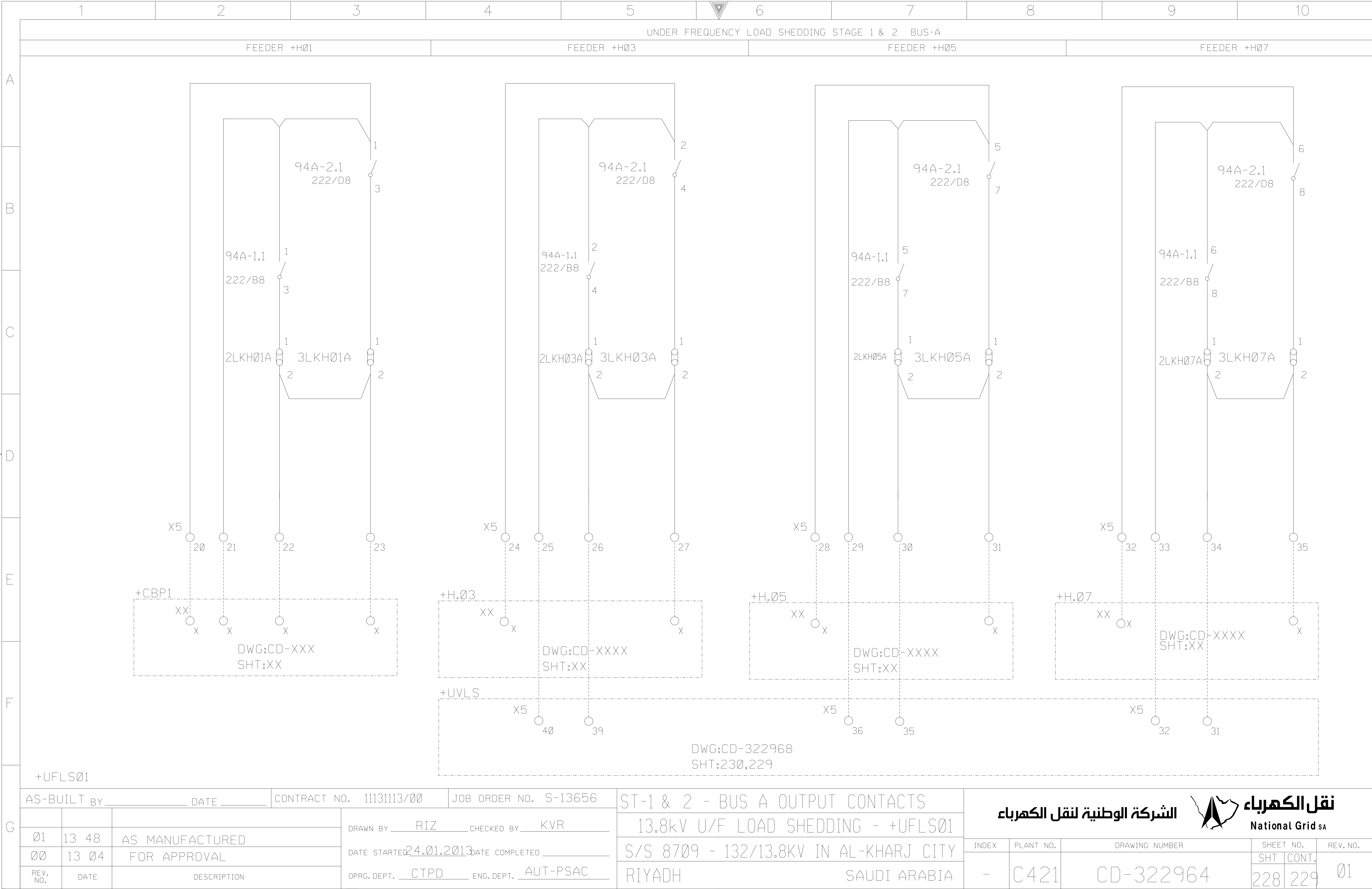
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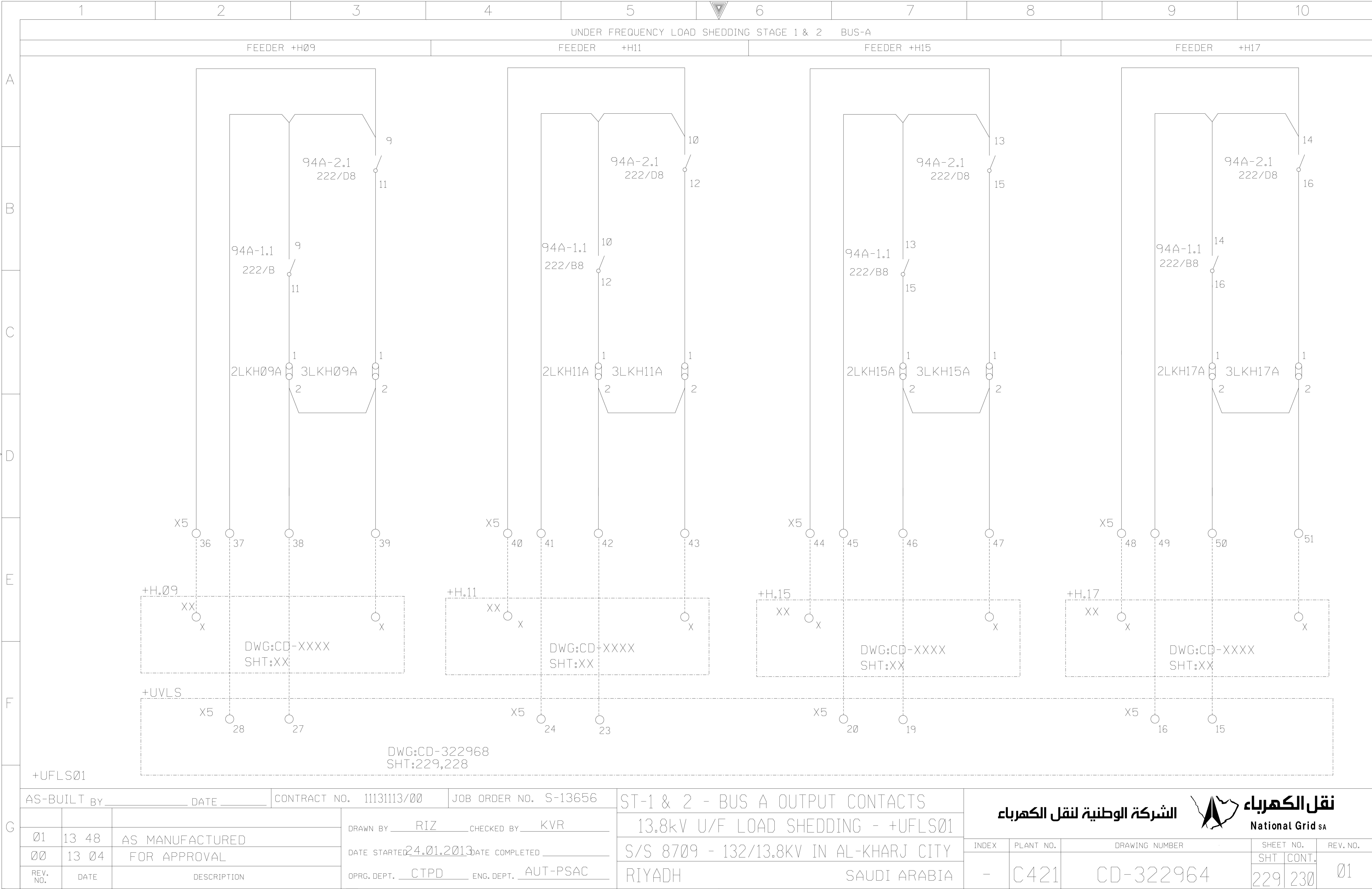
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S/S 8709 - 132/13.8KV IN AL-KHARJ CITY	
RIYADH SAUDI ARABIA	

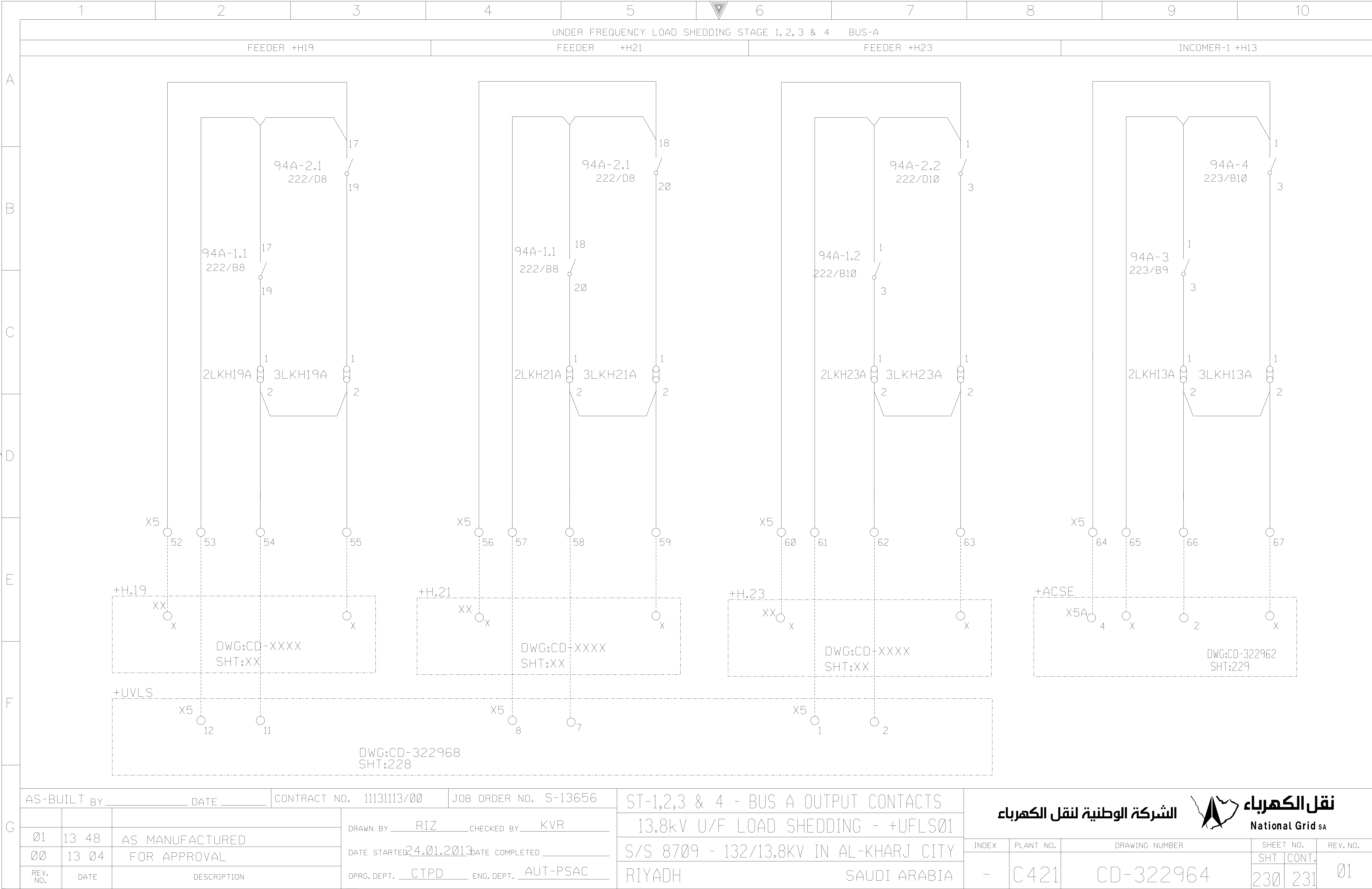
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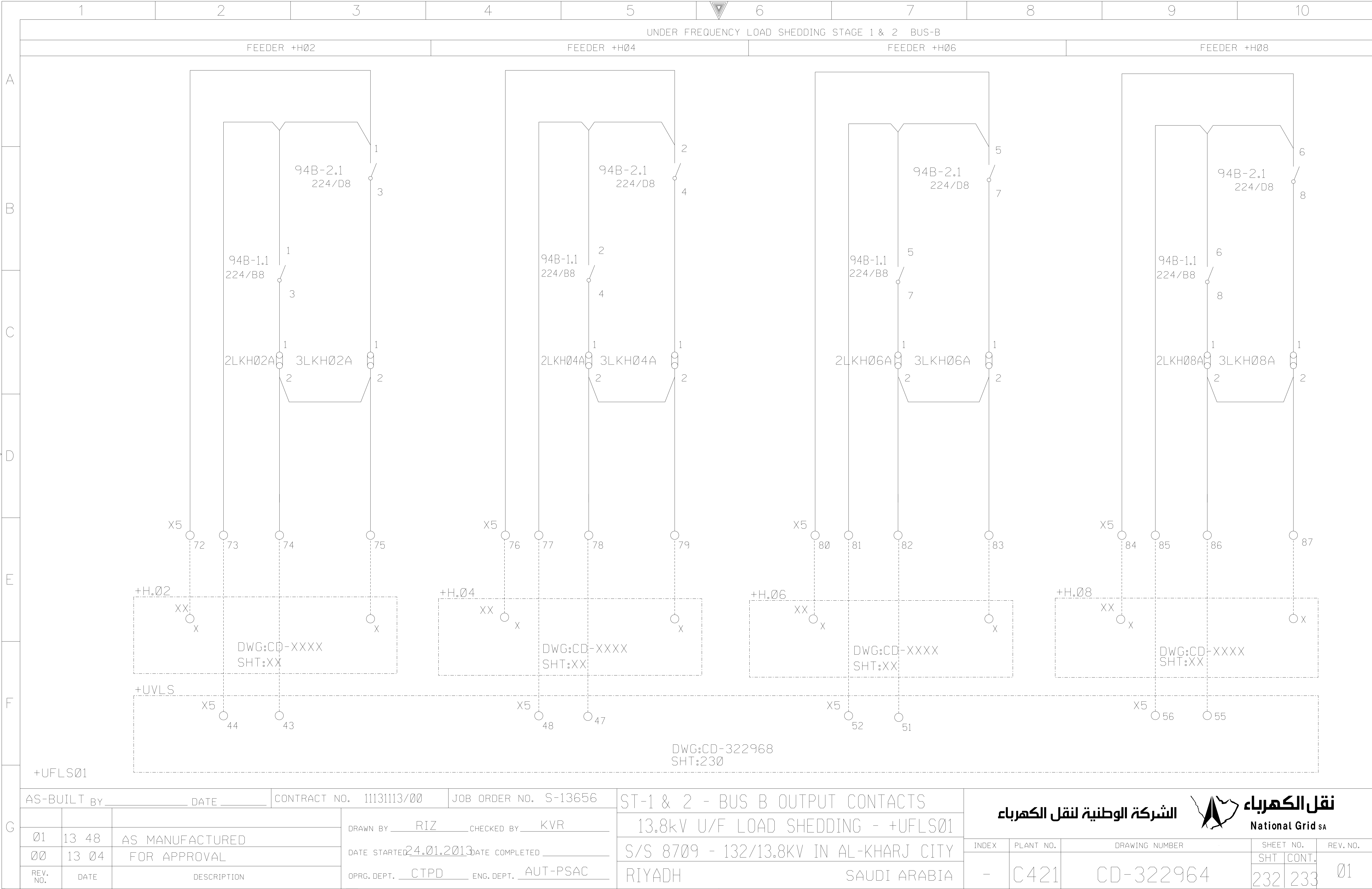


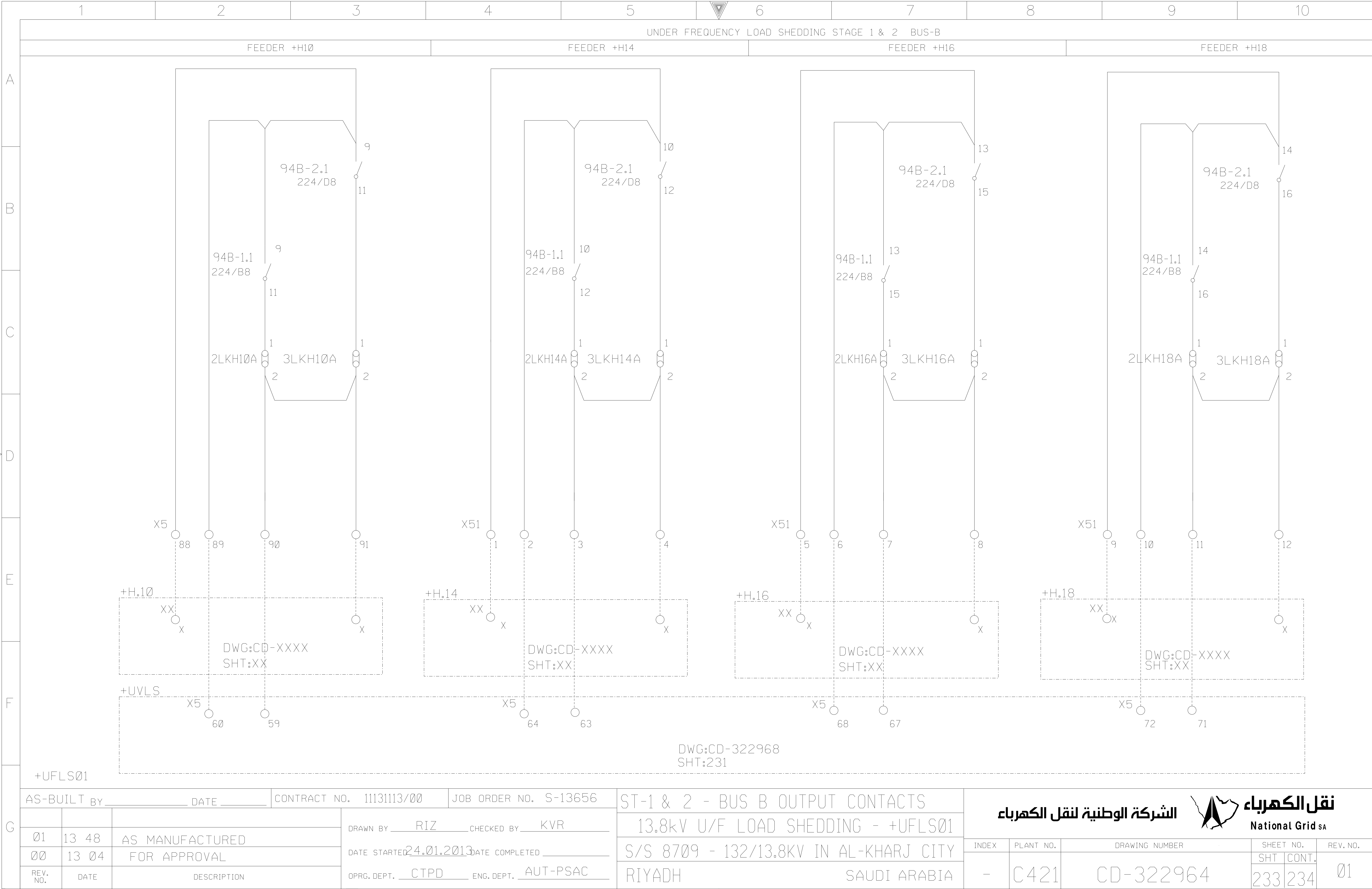




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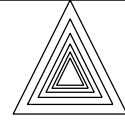
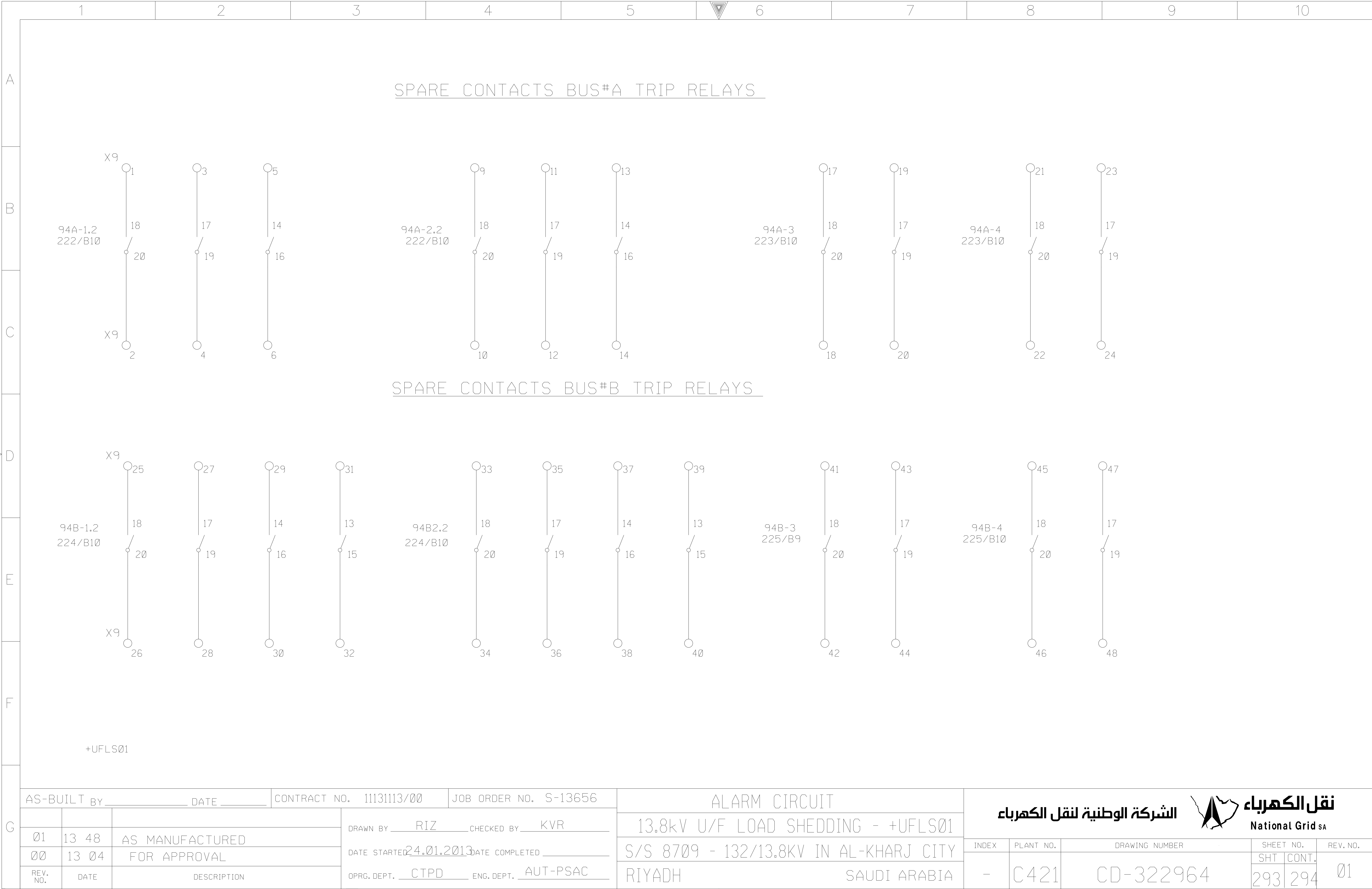










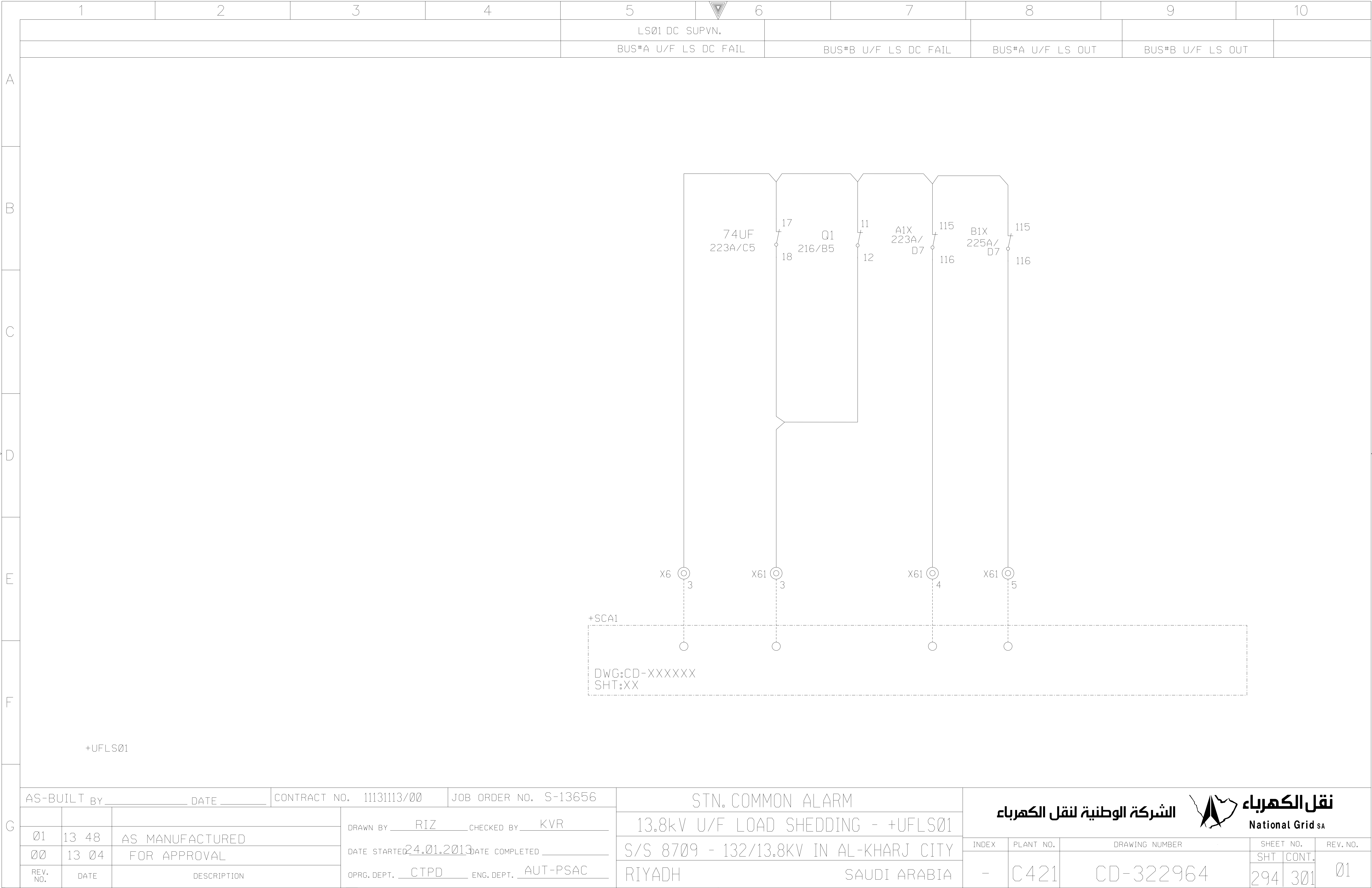


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